**DEPARTMENT OF TRANSPORTATION**
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 82.28

# WELDING INSPECTION REPORT

**Resident Engineer:** Siegenthaler, Peter
**Address:** 333 Burma Road
**City:** Oakland, CA 94607

**Report No:** WIR-018995
**Date Inspected:** 15-Dec-2010

**Project Name:** SAS Superstructure
**Prime Contractor:** American Bridge/Fluor Enterprises, a JV
**Contractor:** Westmont Industries

**OSM Arrival Time:** 700
**OSM Departure Time:** 1530
**Location:** Santa Fe Springs, CA.

**CWI Name:** Ruben Dominguez

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|---|---|---|---|---|---|---|---|---|
| **Inspected CWI report:** | ☐ Yes | ☑ No | ☐ N/A | **CWI Present:** | ☑ Yes | ☐ No | |
| **Electrode to specification:** | ☑ Yes | ☐ No | ☐ N/A | **Rod Oven in Use:** | ☐ Yes | ☐ No | ☑ N/A |
| **Qualified Welders:** | ☑ Yes | ☐ No | ☐ N/A | **Weld Procedures Followed:** | ☑ Yes | ☐ No | ☐ N/A |
| **Approved Drawings:** | ☑ Yes | ☐ No | ☐ N/A | **Verified Joint Fit-up:** | ☑ Yes | ☐ No | ☐ N/A |
| | | | | **Approved WPS:** | ☑ Yes | ☐ No | ☐ N/A |
| | | | | **Delayed / Cancelled:** | ☐ Yes | ☑ No | ☐ N/A |

**Bridge No:** 34-0006
**Component:** Travelers

**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding, QC inspection and non-destructive testing of the Travelers. Upon the arrival of the QA Inspector, the following observations were made:

Traveler Test Rack

On this date, the QA Inspector observed WMI production personnel performing fitting, welding and cutting activities on various assemblies for the Traveler Test Rack.

SAS-EB Traveler

Fixed Stairs Section

On this date, the QA Inspector observed Smith Emery QC Inspector Ruben Dominguez performing Ultrasonic Testing (UT), on the previously completed Complete Joint Penetration (CJP) welds, on the Fixed Stairs Section. The QA Inspector observed that the testing was being performed on the Frame assemblies identified as 10-A237 and 11-B237 that the Weld Joints appeared to be identified as #165, #172, #183, #194 and #206. Per the shop drawings, the weld joint preparation appeared to be designated as a single bevel butt joint and the plate material thickness appeared to be 10mm and 12mm. Initially, the QA Inspector observed Mr. Dominguez performing what appeared to be a straight or longitudinal beam scan on the base metal areas, of the above mentioned weld joints. The QA Inspector noted that the straight beam examination is being performed to verify that laminar defects are not present in the base metal area, through which subsequent angle beam inspection will be performed. During observation, the QA Inspector observed that Mr. Dominguez was performing the straight beam examination utilizing what appeared to be a .500” (12 mm) diameter, 2.25 MHz transducer and a Krautkramer USN 52L testing

instrument. After testing, Mr. Dominguez informed the QA Inspector that no laminar defects were present in the base metal areas and then the QA Inspector observed Mr. Dominguez, proceed to perform the shear wave inspection. During observation, the QA Inspector observed Mr. Dominguez utilizing what appeared to be a 70 degree Lucite wedge coupled to a .625" (16 mm) diameter, 2.25 MHz transducer, to perform the shear wave inspection. During observation, the QA Inspector noted that the scanning pattern being performed by Mr. Dominguez, appeared to be in compliance with AWS D1.1 2002, Figure 6.24. After testing, Mr. Dominguez explained that two Class A rejectable indications were found on the weld joints identified as # 183 and # 193, Frame Assembly 11-B237. Mr. Dominguez further explained that the rejectable indications appeared to be located in the welding root pass area, of the joint. The QA Inspector observed that the indications were clearly marked on the weld area in which the rejectable indications were found.
Mr. Dominguez then explained to the QA Inspector that production will be notified and the repairs will probably commence, on the following day, 12/16/10. Mr. Dominguez further explained, that an applicable testing report, form SE-UT-D1.1-CT-104, will be completed to document the acceptable and rejectable weld joints.
During observation, the QA Inspector observed that the above mentioned testing, appeared to be in compliance with AWS D1.1 2002 and applicable testing procedure SE-UT-CT-D1.1-104.

See attached pictures below.

On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Jose Rodriguez (WID # 3031) continuing to perform grinding activities on the previously completed fillet and flare groove welds. The QA Inspector observed that the grinding being performed appeared to be on the areas which were previously marked by SE QC Inspector Ruben Dominguez. These areas appeared to be excessive weld reinforcement and weld spatter, which appeared to be non conforming to the requirements of AWS D1.1 2002 Structural welding Code-Steel. During observation, the QA Inspector observed that Mr. Dominguez appeared to be utilizing a mechanical grinder to break the edges of connector plate material.

Lower Truss Section
On this date, the QA Inspector observed Westmont Industries (WMI) production welder, Mr. Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities on the previously fit frame assemblies, identified as 12-A240, 13-B240, 7-A225, 8-A226 and 9-A230. The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds.

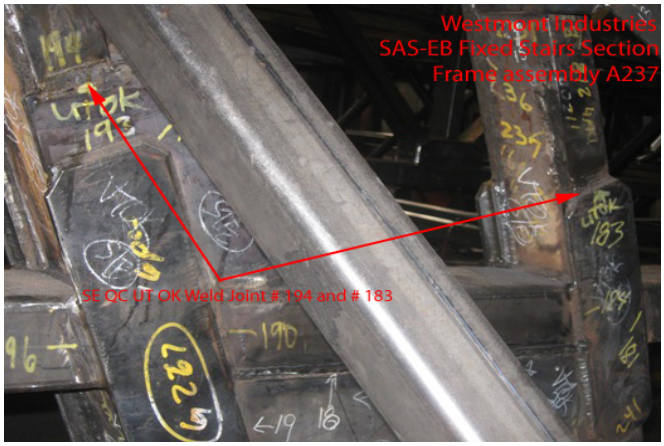
E2/E3-EB Traveler.
On this date, the QA Inspector observed WMI production welder Mr. Juan Jimenez (WID # 3059) continuing to perform Flux Core Arc Welding (FCAW) welding activities on the Frame Assembly identified as 9-A332, per the shop drawings.
The QA Inspector observed throughout the shift, that the FCAW was being performed in various positions, on the connector plate and Tube Steel (TS) material fillet and flare groove welds.

On this date, the QA Inspector observed Westmont industries (WMI) production welder, Mr. Charles Newton (WID # 3200) continuing to perform fitting and Flux Core Arc Welding (FCAW) activities on material, for the E2/E3-EB Traveler. The QA Inspector observed that the material appeared to be identified as Stair Risers to Stair Braces, for the Elevating Platform Assembly. The QA Inspector observed that Mr. Newton was performing the

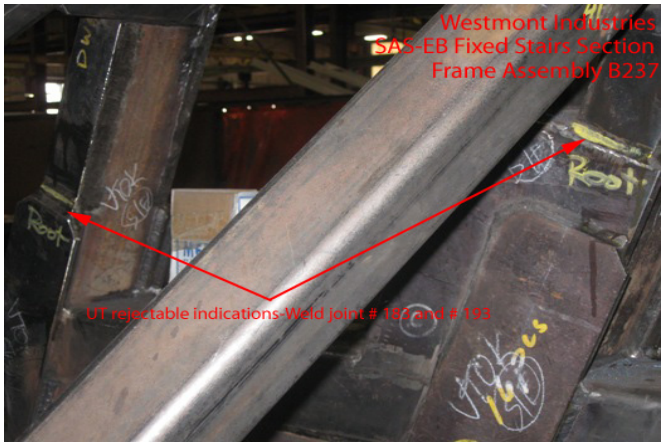
FCAW in various positions and the welds appeared to be designated as fillet and flare groove.

On this date, the QA Inspector observed Westmont industries (WMI) production welder, Mr. Mike Ruiz (WID # 3155) performing fitting and Flux Core Arc Welding (FCAW) tacking activities on material, for the E2/E3-EB Traveler.
The QA Inspector observed that the activities were being performed on Tube Steel (TS) material on the Frame Assembly identified as 7-A327, per the shop drawings. The QA Inspector observed that Mr. Ruiz was performing the FCAW in various positions and the welds appeared to be designated as fillet and flare groove.

The QA Inspector randomly observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and fitting activities. During random observation, the QA Inspector observed that the applicable WPS's and copies of the shop drawings,appeared to be located near each work station, where the above mentioned welding and fitting activities were being performed. The QA Inspector randomly verified that the consumable material, utilized during the welding appeared to be in compliance with the applicable WPS and that the above mentioned welders were currently qualified for the applicable process and position of welding. The QA Inspector randomly observed QC Inspector Dominguez verifying the in-process welding parameters, including voltage, amperage, pre-heat and travel speed and the parameters appeared to be in compliance to the applicable WPS.





# WELDING INSPECTION REPORT

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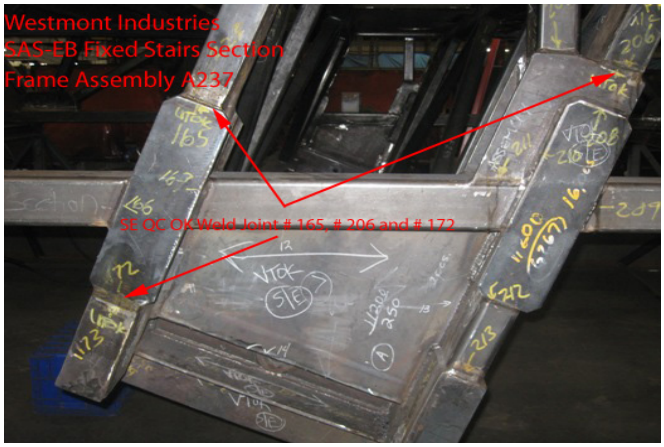


**Summary of Conversations:**

As noted above.

**Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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| **Inspected By:** | Vance,Sean | Quality Assurance Inspector |
| **Reviewed By:** | Edmondson,Fred | QA Reviewer |